

WHAT IS CLAIMED IS:

1. A liquid crystal display comprising

a substrate, and

an array of pixels arranged in a delta pattern on said substrate and including

a thin film transistor array having

a gate pattern having plural gate layers formed on a major surface of the substrate, a gate insulating layer covering said gate pattern and a remaining area of said major surface, amorphous silicon layers formed on said gate insulating layers over said gate layers for providing conductive channels, a source pattern having plural source layers formed on said gate insulating layer and held in contact with the associated amorphous silicon layers, respectively, and a drain pattern having plural drain layers formed on said gate insulating layer, held in contact with said associated amorphous silicon layers, respectively, and spaced from the associated source layers and from the source layers of adjacent thin film transistors of said thin film transistor array by first regions of said gate insulating layer, respectively,

plural transparent pixel electrodes formed on said gate insulating layer and connected to said source layers, respectively, and

storage electrode layers formed on said major surface and spaced from said gate layers by second regions of said gate insulating layer,

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contact slits being formed in said gate insulating layer and selectively extending through said first regions and said second regions so as to expose parts of said major surface under said second regions thereto.

2. The liquid crystal display as set forth in claim 1, in which said plural drain layers have respective portions extending in parallel to portions of said source layers of said adjacent thin film transistors and liable to be short circuited with said portions of said drain layers due to pieces of residual amorphous silicon.

3. The liquid crystal display as set forth in claim 2, in which said gate insulating layer is formed of an insulating material to be etched together with said amorphous silicon.

4. The liquid crystal display as set forth in claim 3, in which said insulating material is formed of  $\text{SiN}_x$  and  $\text{SiO}_x$ .

5. The liquid crystal display as set forth in claim 1, in which said gate layers have respective portions extending in parallel to portions of said plural storage electrode layers and liable to be short circuited due to pieces of residual conductive material.

6. The liquid crystal display as set forth in claim 5, in which said plural source layers and said plural drain layers are formed of a conductive material to be etched together with said pieces of residual conductive material.

7. The liquid crystal display as set forth in claim 6, in which said conductive material is selected from the group of chromium, molybdenum- tantalum and

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a combination of aluminum and tantalum, and said pieces of residual conductive material is chromium.

8. The liquid crystal display as set forth in claim 1, in which said plural gate layers are partially in parallel to said plural drain layers, and said plural drain layers are partially in parallel to said plural storage electrode layers.

9. The liquid crystal display as set forth in claim 8, in which one of said contact slits extends through a part of said gate insulating layer between one of said gate layers and adjacent one of said plural drain layers, another part of said gate insulating layer between said adjacent one of said plural drain layers and adjacent one of said plural storage electrode layers and yet another part of said gate insulating layer between one end portion of said part of said gate insulating layer and one end portion of said another part of said gate insulating layer opposed to said one end portion of said part.

10. A process for fabricating a liquid crystal display, comprising the steps of:

- a) preparing a substrate having a major surface;
- b) patterning a first conductive material layer into plural gate layers and plural storage electrode layers on said major surface;
- c) covering said plural gate layers and said plural storage electrode layers with a gate insulating layer;
- d) patterning an amorphous silicon layer into plural amorphous silicon layers on said gate insulating layer;

e) selectively etching said gate insulating layer together with a piece of residual amorphous silicon connected between two of said plural amorphous silicon layers, if any, for forming contact slits in said gate insulating layer, a piece of conductive material between one of said plural gate layers and an adjacent storage electrode layer being exposed to one of said contact slits, if any;

f) patterning a second conductive material layer into plural drain layers and plural source layers, said piece of conductive material being split during the patterning of said second conductive material layer;

g) patterning a transparent material layer into pixel electrodes respectively held in contact with said plural source layers; and

h) completing said liquid crystal display.

11. The process as set forth in claim 10, in which one of said contact slits extends through a part of said gate insulating layer between one of said gate layers and adjacent one of said plural drain layers, another part of said gate insulating layer between said adjacent one of said plural drain layers and adjacent one of said plural storage electrode layers and yet another part of said gate insulating layer between one end portion of said part of said gate insulating layer and one end portion of said another part of said gate insulating layer opposed to said one end portion of said part.